

REMARKS/ARGUMENTS

In the Office Action dated March 7, 2005, the Examiner entered a final rejection of pending claims 1-20 as unpatentable under 35 U.S.C. §103(a) in view of the combined teachings of Bryant '852, Warner '520, and Eubank, Jr. '433. Concurrently herewith, applicant has requested continued examination of the application to consider the foregoing amendments and the following remarks.

Applicant has amended the specification to further highlight the aspect of the invention in which the poles making up the frame are grouped in threes, and crossed so that at least one crossing is located substantially at the top of the frame. This aspect of the invention was disclosed in the application as originally filed, as shown in Figs. 1-3. No new matter has been added.

Applicant has also amended independent claim 1, from which all other pending claims depend, in order to recite that at least one pole crossing is provided substantially at the top of the frame. This aspect of the invention provides the important benefit in a dome-shaped frame that water or other matter that may settle onto the top of the shelter structure supported by the frame will tend to run off, rather than settle atop the structure, and potentially leak into the sheltered space beneath. None of the references of record relied upon by the Examiner disclose or suggest this aspect of the invention. Moreover, there is no motivation or suggestion to combine the teachings of the references, as the Examiner has done, in order to read them on the pending claims. Such combination is motivated only by the teachings of the pending application, and is the erroneous result of hindsight reconstruction of the claimed invention.

Bryant '852, the main reference relied upon by the Examiner, specifically teaches a dome-shaped frame and tent structure in which multiple poles are arranged in a crossing pattern to form triangular and polygonal openings. Col. 1:43-44. Bryant '852 contends that as a result, the structure has increased strength and rigidity. Id. In Bryant '852's structure, poles are arranged in pairs, and cross in a symmetrical arrangement specifically so that a polygonal opening is formed directly at the top of the structure. Col. 2:58-3:21; col. 3:33-38;

Figs. 2-5. This is done to provide a location to provide a vent. Col. 3:33-38. In addition, each pair of poles has first ends that terminate at the same point and second ends that terminate at different points. See Col. 2:58-3:21; Figs. 2-5. Because Bryant teaches arranging the poles in pairs, and having them cross to form a symmetrical dome-shaped structure, as shown in Figs. 1-5, the structure taught necessarily has an opening directly at the top of the frame in every embodiment. A significant problem with the arrangement of poles taught by Bryant '852 is that there can be no pole crossings substantially at the top of the frame structure. To the contrary an opening is intentionally formed for venting, and this provides a location substantially at the top of the structure where water or other matter can pool or puddle, and eventually leak into the sheltered space defined by the structure.

In addition to other deficiencies, the Warner '520 reference also does not teach arranging poles in groups of three with at least one crossing located substantially at the top of the frame. As readily seen in Fig. 3 of Warner '520, similarly to Bryant '852, the poles are grouped in an even number, i.e., six, and are symmetrically arranged such that a large opening is formed in the frame at the top, as shown in Fig. 2. Eubank, Jr. '433 does not even teach a dome-shaped frame or shelter structure and is completely inapplicable. See Fig. 3, for example.

Because none of the references teach the grouping of an odd number of poles, i.e., three, or the arrangement of the poles such that at least one crossing is located substantially at the top of the frame, they do not disclose or suggest the invention as presently claimed, either alone or in combination. Accordingly, all of the pending the claims are patentable.

The Examiner argues in the Office Action that there is no significance to the grouping of the poles. However, as described at pages 3-4 of the specification, the combination of the pole arrangement and tension harnesses provides a flexible yet stiff structure that resists deformation or failure from the application of outside forces, such as wind. Moreover, without the grouping described and claimed, it would not be possible to provide a pole crossing substantially at the top of the frame. This can be seen in both Bryant '852 and Warner '520, where groupings of even numbers of poles, and symmetrical arrangement of the poles, necessarily results in an opening at the top of the frame, rather than a pole crossing.

Accordingly, there is patentable significance to both the grouping of the poles and their crossing arrangement in the present invention.

In addition to the deficiencies of the teachings of the combined references, the Examiner has erroneously combined them without pointing to any legally-cognizable motivation or suggestion to combine them. In order to properly combine prior art references, there must be some demonstrable motivation or suggestion to combine. *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 664-666 (Fed. Cir. 2000); *In re Laskowski*, 871 F.2d 115, 117, 10 U.S.P.Q.2d 1397 (Fed. Cir. 1989); *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984). Rather than identify any motivation or suggestion to combine the teachings of the references, it is apparent the Examiner has erroneously combined the references using hindsight based on the teaching of the invention itself, in order to reconstruct the invention recited in the pending claims. Such hindsight reconstruction based on the teachings of the invention itself is clearly improper. *Id.*

The Examiner continues to contend, as she has in past Office Actions that Warner '520 teaches "a dome shaped shelter structure comprising a frame having a plurality of poles crossing each other, the poles (10) being assuming [sic] substantially arcuate shape under tension" (emphasis added). This is an incorrect reading of the Warner et al. reference, as applicant has pointed out several times in both responses to previous office actions, and in a first appeal brief to the Board of Patent Appeals and Interferences. The Examiner has never responded to any of these responses, however, and simply keeps restating the same wrong contention. Warner et al. describes that "the frame comprises a plurality of substantially semicircular arched support ribs pivoted together on a common locus" Col. 1, lines 30-32. The frame is "extremely resistant to wind and snow loading due to the hoops following a predetermined curve" Col. 1, lines 56-58 (emphasis added). Further, "at least two sets of arched support ribs are provided and each set of hoops comprises a plurality of semi circular or curved ribs 10 pivoted on a common locus by the ends thereof as indicated by reference character 11 so that they can be collapsed one upon the other for transportation and storage The support ribs can be formed from solid or tubular stock as desired." Col. 2, lines 25-33 (emphasis added).

Nowhere does Warner et al. teach that the "support ribs" that make up the

frame are made of a flexible or resilient material. Nor does Warner et al. teach that the “support ribs” assume a substantially arcuate shape under tension. To the contrary, Warner et al. teaches that the tubes used to make the frame are a “solid or tubular stock,” and that they are pre-shaped in a “predetermined curve” shape. As a result, they stay in that shape, even when collapsed upon each other, for easier transportation and storage. Since Warner et al.’s “support ribs” are not flexible or resilient, and are not tensioned into a substantially arcuate shape, persons skilled in the art would readily understand there is no need or reason to use a tensioning mechanism, such as a tension harness, to help maintain them in that shape. Thus, such persons would not be led to combine the teaching of Warner et al. '520 with Bryant '852. The Examiner's combination of these references is based on hindsight for the purpose of reconstructing the presently claimed invention, and is erroneous as a matter of law.

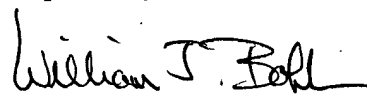
Similarly, Eubank Jr. '433 teaches a completely different type of structure in which a plurality of straight, rigid struts 50 are connected end to end and are extended in parallel from parallel points on a common plane to another set of parallel points on the common plane. This forms a vault rather than a dome-shaped structure. Further, Eubank '433 includes cross struts 52 that extend longitudinally from one end of the vault to the other and cross the struts 50. The struts 50 do not terminate at either end in the common plane. Thus, while a number of four-sided openings are formed, none of them are formed by the crossings of poles that are in an arch shape under tension, and that terminate at both ends in a common plane. Moreover, none of the struts of Eubank '433 are grouped together or arranged to terminate in a common point in a common plane. The tension means 82 therefore do not traverse openings in the frame that are formed by crossings of poles with ends that terminate in a common plane, as recited in the pending claims, and there is no reason a person of skill in the art would have been motivated to combine any of the teachings of Eubank Jr. with either Bryant '852 or Warner '520. Again, the Examiner's combination is based solely on hindsight with the goal of reconstructing the claimed invention, and is erroneous as a matter of law.

CONCLUSION

The teachings of the prior art of record, whether taken alone or in combination, do not disclose or suggest the combination of elements of the present invention as claimed. Moreover, there is no legally-cognizable basis to combine the teachings of the references, most of which disclose structures that are very different from the structure of the present invention. The Examiner's combination of the references is based on hindsight and is erroneous. Accordingly, the invention as presently claimed is patentable and an early notice to that effect is earnestly solicited.

If the Examiner believes an interview would advance the prosecution of this matter to conclusion, the Examiner is invited to contact the applicant's undersigned attorney at the telephone number provided below.

Respectfully submitted,


William J. Bohler
Reg. No. 31,487

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415-576-0300
Attachments
WJB:ean
60522264 v1